BRAIN DRAIN TO BRAIN GAIN:

HEALTH WORKFORCE MIGRATION: A CASE STUDY OF GENERAL PRACTITIONERS IN UGANDA

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Foreword

This case study, the second in a three-part series of studies, is a reflection on the dynamics surrounding health workforce migration as it affects Uganda. It is an attempt to understand the pull–push factors that influence the choices health workers have to make. In particular, the report focuses on the factors that determine migration, either into or out of particular countries. We hope that this work sheds more light on and provides insights into the Ugandan and indeed the African experiences of the brain drain phenomenon, its manifestations, and the consequences and longer-term implications for the developing world.

Furthermore, it is our hope that the findings herein will inspire policy- and decision-makers to rethink strategies for addressing the factors behind the trends in the migration of health workers.

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Executive Director
African Centre for Global Health and Social Transformation (ACHEST)

Acknowledgements

This case study draws on the initiatives, ideas and work of many people and organizations. The African Centre for Health and Social Transformation (ACHEST) is grateful to the Ministry of Health of the Government of Uganda for creating an enabling environment for institutions such as ACHEST to make a contribution towards topical issues in the health sector as they affect the country.

The Brain Drain to Brain Gain project under which this study was planned and resourced owes its success to the European Union and NORAD, who have provided the funding for the project.

We are indeed grateful to the World Health Organization, through which the funding for this work is channelled, for providing technical guidance and support towards the organization of the study. ACHEST also acknowledges with thanks the contribution of the Uganda Medical and Dental Practitioners Council for providing the major data sets for the study.

Comments on the draft documents were provided by Ibadat Dhillon (WHO).

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EXECUTIVE SUMMARY

Background
According to the Uganda Annual health sector performance report 2014/2015, Uganda had a total of 81,982 health workers employed in the health sector. The number of medical doctors was estimated at 4,811, accounting for 6% of the total health workforce in the country. General practitioners (GPs) alone were estimated to total 3,993, the equivalent of 83% of medical doctors in service. A total of 42,530 (52%) HWS were employed in the public sector, and 9,798 (12%) in the private not-for-profit sector, while about one third (29,654) were private practitioners, were unemployed or had emigrated. The 42,530 health workers were deployed across various public institutions comprising Ministry of Health headquarters, two national referral hospitals, three central specialized institutions, 14 regional referral hospitals, 47 general hospitals, 166 level IV health centres, 962 level III health centres and 1321 level II health centres. The overall staffing level in the public sector was estimated at 70% of approved posts.

Study scope and limitations
In this study, our analysis of existing stock, entry and exit characteristics is restricted to 2,915 GPs registered between 2010 and 2015 who are working in the public sector or private sector, or who are temporarily unemployed.

Current stock
The data indicate that female GPs who did not emigrate account for 37% of the current stock of GPs. Disaggregated by age, a high proportion of GPs in the existing stock were aged below 40 years (86%). The yearly average growth of the stock between 2010 and 2015 was 442 GPs. GPs registered in Uganda within the study period came from 74 different countries worldwide. On average over the study period, 38% of the registered GPs in Uganda were foreign nationals, mainly from North America (19%) and Europe (12%). The private sector was the largest employer (55%). The public sector employed 38%, while 4% and 3% were unemployed and retired respectively.

Entry
In Uganda, it is a legal but not a mandatory requirement under the law for health professionals (both nationals and foreigners) to be registered with a relevant health professional council created by the government for this purpose. In the period of study, 2,915 GPs entered the Ugandan labour market, giving an average entry rate of 486 new GPs to the labour market annually over the study period. In terms of gender, 37% of GPs entering the market were females. Of the 2,915 GPs who entered the market during this period, 1,207 (41%) were foreign nationals, mainly from the Americas (18%) and Europe (12%). Entrants from the rest of Africa were only 5%, and while 4% were from Asia. GPs entering the Ugandan market from within Africa (excluding Uganda) in the period 2010–2015 numbered 133.

The majority of GPs in Uganda received their medical training from within Uganda (58%), with lesser proportions receiving training in North America (19%) and Europe (12%). Outside Uganda, North America and Europe therefore account for the bulk of medical
training (31%). Between 2010 and 2015, out of 2915 GPs registered with the Uganda Medical and Dental Practitioners Council (UMDPC), a total of 72 Ugandan nationals (2.5%) returned to Uganda from training abroad. This is equivalent to an average of 12 annually. Over the study period, 38 foreign nationals (1.3%), or an average of six annually, were trained in Uganda and registered as GPs. These GPs came from 10 countries, mainly Somalia and Kenya, but also from as far afield as India, Islamic Republic of Iran, Mexico and Poland.

Labour market dynamics

In Uganda, the public sector denotes government owned and managed, while the private sector covers all other spheres owned or managed by individuals or organizations that work for profit (Private for Profit) or charitable causes (Private not-for-Profit). The common denominator is that both public and private facilities are regulated by the government.

In Uganda, therefore, the privately owned health facilities mainly fall into two categories – Private for Profit (PFP) and Private not for-Profit (PNFP). Below the hospital level, there are several thousand facilities of varying capacities dotted across the country, especially in urban areas. In the rural areas, where over 70% of the population lives, nearly all the health facilities are government or public owned.

The data also shows that 5% of the locally trained GPs and 2% of the foreign trained GPs were unemployed in the period of study. This is against a backdrop of severe shortages of doctors, especially in rural facilities. In addition, the terms and conditions of work in the public sector are deemed unattractive, and this adversely affects employment, deployment and retention, especially for rural posts.

Exit

The “exit” statistics used in this study are based only on letters of good standing solicited by GPs intending to travel abroad for study, employment or both. Letters of good standing serve only as proxy indicators, given that there are currently no mechanisms for actual tracking of the movements of applicant GPs within the country and abroad. Between 2010 and 2015, 265 GPs out of a total of 2915 migrated from Uganda, giving an attrition rate of 9% per annum. However, this figure could be higher, given that migration is entirely possible without recourse to registration. The female exit rate was 33%, compared to 37% for entry and existing stock. Gender, therefore, does not have a significant impact on the rate of migration.

In terms of age, 89% of migrating GPs were below 40 years of age, showing that younger GPs were more likely to migrate.

The cumulative total number of GPs who migrated over the period of study was 265 (an average of 44 per annum), compared to the cumulative total of 2915 who entered the job market in the same period, translating to an approximate net loss of 10% to migration.

It is generally believed that Ugandans migrate in search of better terms and conditions of service. The majority of the migrating doctors were destined for African countries. The data reveal that 52% of migrating GPs stayed within Africa, 30% went to Europe, while North America and Oceania accounted for 8% and 7% respectively.

Over the study period, 192 GPs of Ugandan nationality migrated to other countries, while 71 returned to the country from study or work abroad.

Conclusion

Some governments have responded to migration challenges by increasing the salaries of health workers, with the hope of attracting and retaining workers and ultimately improving health outcomes. This may not go far enough. Attracting and retaining qualified health workers and motivating them to deliver desired health outcomes is best achieved when all the major variables are comprehensively addressed and aligned. All workers without exception will seek environments with good infrastructure (roads, electricity, piped water, access to goods and services, and other amenities of life) and opportunities for capacity-building and career progression. Health workers will shun working in facilities that are dilapidated and ill equipped, that routinely experience drug or supply stock-outs, and that lack visionary management and leadership.
A CASE STUDY OF GENERAL PRACTITIONERS IN UGANDA

1. Background

1.1 Global context

The High-Level Commission on Health Employment and Economic Growth, established in March 2016, in its final report to the Seventy-first session of the United Nations General Assembly in September 2016, recommended that effective investments in the health workforce could generate enormous improvements in health, well-being and human security, as well as decent jobs and inclusive economic growth.

The report established compelling evidence on the relationship between investments in the health workforce and attainment of sustainable development, as expressed in the 17 Sustainable Development Goals (SDGs), specifically SDG 3 (Good health and well-being) and SDG 8 (Decent work and inclusive economic growth), as well as SDG 1 (End poverty in all its forms everywhere), SDG 4 (Quality education), SDG 5 (Gender equality), SDG 10 (Reduced inequalities), SDG 16 (Peace, justice and strong institutions) and SDG 17 (Partnerships for the goals).

The report of the experts calls for radical reforms (not business as usual) in education, workforce innovation, technological transformation, health workforce for growth, prioritizing women, guaranteeing rights, transforming aid, international migration, humanitarian crises, and information and accountability.

Of relevance to the present study, the report also calls for countries to address push and pull factors driving loss of skilled health workers from countries with the most serious health worker shortages and, in line with International Labour Organization Conventions and the World Health Organization (WHO) Global Code of Practice on the International Recruitment of Health Personnel, to ensure mutual benefit from international mobility of health workers. For example, consideration should be given to resource transfers to origin countries through investments in the training systems of those countries from which destination countries draw staff.

1.2 African context

According to the Global Strategy on Human Resources for Health: Workforce 2030, globally, the needs-based shortage of healthcare workers in 2013 was estimated to be about 17.4 million, of which almost 2.6 million are doctors, over 9 million are nurses and midwives, and the remainder represent all other health worker cadres. The largest needs-based shortages of health workers are in South-East Asia at 6.9 million and Africa at 4.2 million. The shortage in absolute terms is highest in South-East Asia due to the large populations of countries in that region, but in relative terms (that is, taking into account population size) the most severe challenges are in the African Region, which suffers more than 24% of the global burden of disease but has access to only 3% of health workers and less than 1% of the world’s financial resources – even with loans and grants from abroad.
The report adds that the aggregate projected global deficit of health workers against needs could exceed 18 million by 2030. Current trends of health worker production and employment will not have sufficient impact on reducing the needs-based shortage of healthcare workers by 2030, particularly in some countries: in the African Region, the needs-based shortage is actually forecast to worsen between 2013 and 2030.

Evidently, not enough health workers are being trained or recruited where they are most needed, and increasing numbers are joining the brain drain bandwagon by emigrating to better-paying jobs in richer countries. According to the 2006 World health report, the largest relative need exists in Sub-Saharan Africa, where an increase of almost 140% is necessary merely to meet the threshold requirement.

According to the Organisation for Economic Co-operation and Development (OECD) report International Migration Outlook 2015, in the decade preceding the adoption of the Global Code of Practice on the International Recruitment of Health Personnel,1 the number of doctors and nurses originating from countries with severe shortages of health workers who migrated to OECD countries grew by nearly 84%. In 2010/2011, about 5% of doctors and nurses in the world had migrated to an OECD country, with emigration rates of doctors being highest on the African continent (13.9%) and those of nurses being highest in Latin America (15.7%). In the same year, WHO estimated that 57 countries (31 in Africa) were still facing critical shortages of 2.8 million health workers.

1.3 Ugandan context

Uganda was categorized by the 2006 World health report as being among the 57 countries experiencing a critical shortage of health workers (fewer than 2.3 physicians, midwives and nurses per 1000 population).2 While the production of some cadres of health workers has steadily increased since 2006, with over 55 health training institutions commissioned, the supply has not matched national demand. This has mainly been attributed to poor absorptive capacity and labour market imperfections generating short-run structural unemployment of qualified health workers in the economy. In addition, the terms and conditions in the public sector are often deemed unattractive, adversely affecting employment, deployment and retention, especially for rural posts.

The qualified health workforce in Uganda in 2015 stood at 81,982. Of those, two thirds (55,206) were nurses. Medical doctors numbered 4811, 1.6% of the total health workforce. General practitioners (GPs) alone were estimated to constitute 83% of the available medical doctors. Records from the health professional councils show that 42,530 (52%) of the health workforce were employed in the public sector in 2015, 9798 (12%) in the Private Not-for-Profit sector, while 29,654 (about one third) were private practitioners, were unemployed or had emigrated.4

1.4 Case study context

This study is the second in a series produced by the African Centre for Global Health and Social Transformation (ACHEST) under the project Brain Drain to Brain Gain: Supporting the WHO Code of Practice on International Recruitment of Health Personnel for Better Management of Health Worker Migration. In the first year of the project a case study was produced on the migrant surgical workforce. The present case study, being undertaken in Year 2 of the project, focuses on the migratory patterns and their determinants of doctors without additional or specialized qualifications, commonly referred to as General Practitioners (GPs). This second case study is based on data recorded by the Uganda Medical and Dental Practitioners Council for the period 2010–2015.

This study aims to generate momentum and accelerate progress by Uganda in the implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel. The Global Code encourages Member States to put in place bilateral, regional or multilateral arrangements to promote cooperation and coordination in the area of international recruitment (WHO, 2010), and to take into account the needs of developing countries and countries with economies in transition.

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3 Annual health sector performance report 2014/2015 (as of August 2015).
4 Ministry of Health and USAID/SHRH project reports, 2015.
2. Key definitions

2.1 General practitioner: definition and functions

A general practitioner (GP) is a medical doctor whose practice is not oriented to a specific medical speciality but instead covers a variety of medical problems in patients of all ages. Such a practitioner therefore does not specialize in any particular branch of medicine but treats a wide variety of relatively minor medical conditions and is able to discern those conditions requiring specialist attention. A GP will refer patients “forward” to a consultant (hospital specialist) when the patients’ needs cannot be addressed locally.

GPs are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community and their culture, always respecting the autonomy of their patients. For the purpose of this study and in the Ugandan context, GPs are broadly defined as doctors without additional or specialized skills. They are the first line or entry point for medical doctors in the health system. GPs will initially handle any medical condition that presents itself to their attention and refer those that need specialized attention accordingly. In Uganda, GPs also perform routine surgeries such as caesarean sections, Safe Male Circumcision (SMC), management of simple fractures and hernia repair. In hard-to-reach areas, a GP is the final authority on all or any illnesses. Typically, GPs work in health facilities and their major preoccupation is to treat patients.

2.2 Functionality

To understand the importance of GPs in Uganda, it is imperative to examine the environment in which they operate. The health care delivery system is structured according to a hierarchical administrative system, which dates back to colonial times. In recent times, the Government of Uganda has introduced several reforms in the economy, including in the health sector. One such reform is the introduction of level IV health centres below district or general hospitals at the county level. Level IV health centres are expected to have at least one doctor, in most cases a GP. In 2015, Ministry of Health reports indicated that 51% (100/195) of the level IV health centres were “functional”, meaning they were able to do caesarean sections; 38% (75/195) were able to provide blood transfusions; and 33% (65/195) were able to provide both caesarean sections and blood transfusions. Introduced in recent times as part of the wider public health sector reforms, Uganda has a six-tier health facility system, structured around the administrative units shown in Table 1.

Table 1 shows the placement of healthcare facilities according to administrative establishment and level of hierarchy. The higher the level, the higher the “sophistication” of the facility it terms of the cases it is designed to handle. The higher-level facilities, therefore, have more specialist doctors and other cadres of specialist medical personnel. Equally, the higher-level facilities have considerably larger resources at their disposal from the national coffers. Health facilities below level IV do not employ medical doctors; however, the GPs at level IV

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Administrative Establishment</th>
<th>No. of Health Facilitiesb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>No. of administrative Establishments</td>
</tr>
<tr>
<td>National referral hospital</td>
<td>National</td>
<td>1</td>
</tr>
<tr>
<td>Regional referral hospital</td>
<td>Regional</td>
<td>14</td>
</tr>
<tr>
<td>District/general hospital</td>
<td>District</td>
<td>115</td>
</tr>
<tr>
<td>Health centre IV</td>
<td>County</td>
<td>249</td>
</tr>
<tr>
<td>Health centre III</td>
<td>Sub county</td>
<td>1,403</td>
</tr>
<tr>
<td>Health centre II</td>
<td>Parish</td>
<td>7,431</td>
</tr>
</tbody>
</table>


are expected to have supervisory roles over the facilities at lower levels. Specialist doctors, on the other hand, are only deployed at regional and national referral facilities.

The analysis above serves to illustrate the critical role that GPs play in Uganda’s healthcare delivery system.

3. Study methodology and findings

3.1 Scope of the study

The study examines various aspects of GPs in Uganda with a view to understanding the factors that may be influencing their decisions to migrate. The study covers the period 2010 to 2015. The data are analysed on a year-by-year basis under the entry, existing stock and exit categories for GPs. The data cover only GPs who in a particular year of their study sought registration, licensure or letters of good standing from the Uganda Medical and Dental Practitioners Council.

3.2 Data sources

This case study is based on secondary data obtained from the Uganda Medical and Dental Practitioners Council over the period 2010–2015 and on the review of relevant literature and reports. Attention was particularly paid to the functionality of the healthcare delivery system at all levels of governance in Uganda. Purposive discussions were held with key stakeholders in the health sector with a view to gaining insights into the dynamics of the health workforce in general and their migratory behaviour in particular.

3.3 Purpose of the study

The purpose of this study is primarily to draw attention to the factors associated with migration of Ugandan GPs. This research should also contribute to a better understanding of the pull and push factors of the migration equation. The findings and recommendations will assist policy-makers, planners and authorities to rethink health policy at the legal, strategic, and implementation levels for increased effectiveness of health interventions in the local, national, regional and global arenas, recognizing that African governments need to continuously reassess and revamp health policy to make it relevant, amenable and adaptable to the ever changing and complex health demands of today.

3.4 Study methodology

In Year 1 of the Brain Drain to Brain Gain project, a number of preparatory activities were undertaken prior to conducting case study 1 on the migrant surgical workforce in Uganda. The preparatory activities followed a six-step study protocol developed by the WHO Global Health Workforce Alliance for the five participating countries (including Uganda) in support of the full implementation of the WHO Code of Practice on International Recruitment of Health Personnel, with the overall aim of achieving better understanding and management of health worker migration. The six steps were as follows:

1. stakeholder mapping and engagement
2. data acquisition
3. data verification and analysis
4. data gap identification
5. minimum data source identification
6. country case studies.

Case study 2 focuses on the migration of Ugandan GPs, and is based on the same framework as case study 1, with the same data source – the Uganda Medical and Dental Practitioners Council, a professional health council established by the Government of Uganda to register and license medical doctors and dental practitioners.

3.5 Study findings

The study findings are presented in Chapters 4, 5 and 6 under three subcategories established by the study protocol:

- Existing stock: the listing of employed licensed health professionals and other health workers serving in public or private health facilities. Variations in the stock reflect the magnitude of inflows and outflows.

- Entry: includes new workers entering the health care labour market from training. This comprises part of inflow, which can also include workers re-entering the labour market after a career break, and workers entering the labour market from international sources and as temporary or permanent migrants.
4. **GPs in Uganda: characteristics of existing stock**

4.1 **Overall pattern**

Existing stock is the record or listing of employed licensed health professionals and other health workers serving in public or private health facilities. Variations in the stock reflect the magnitude of inflows and outflows.

In 2015, Uganda was estimated to have 48115 medical doctors (6% of the total health workforce). GPs alone were estimated to number 3993, the equivalent of 83% of the available medical doctors.

4.2 **Study scope and limitations**

In this study, analysis of existing stock is limited to GPs registered between 2010 and 2015 (Table 2) and who are working either in the public or private sector or are temporarily unemployed (for example due to structural rigidities in the labour market). The figures are adjusted to exclude GPs who applied for letters of good standing purportedly to seek employment or study abroad. Historical data (before 2010) are not included in the analysis because their availability, consistency and reliability cannot be guaranteed. More recently, efforts have been made to actively track and register professional health workers, and validate the inventory using the electronic human resources for health information system.


4.3 **Existing stock: distribution by sex and age**

The data indicate that female GPs who chose not to emigrate accounted for 37% of the existing stock. In terms of age, the proportion of GPs aged below 40 years in the existing stock was 86% (Figure 1).

4.4 **Existing stock: growth pattern**

The yearly average growth of the existing stock between 2010 and 2015 was 442 GPs (Table 2). Figure 2 shows a moderate upward trend in the growth of existing stock between 2010 (300) and 2015 (480). These figures represent only new registrations over the study period. Available data captured electronically in the human resources for health information system of the Uganda Medical and Dental Practitioners Council is for now limited to new registrations, that is, fresh graduates from

### Table 2.
**EXISTING STOCK OF GPs IN UGANDA BY FIRST YEAR OF REGISTRATION**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
<th>Ave.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>186</td>
<td>323</td>
<td>275</td>
<td>252</td>
<td>295</td>
<td>326</td>
<td>1 657</td>
<td>276</td>
<td>63%</td>
</tr>
<tr>
<td>Female</td>
<td>121</td>
<td>165</td>
<td>172</td>
<td>163</td>
<td>216</td>
<td>156</td>
<td>993</td>
<td>166</td>
<td>37%</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>488</td>
<td>447</td>
<td>415</td>
<td>511</td>
<td>482</td>
<td>2 650</td>
<td>442</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.5 Existing stock: country of origin and country of training

GPs registered in Uganda within the study period came from 74 different countries worldwide. Over the study period, 38% of the existing stock of GPs in Uganda were foreign nationals, mainly from North America (19%) and Europe (12%) (Figure 3 and Table 3). Given that Uganda has had GPs from 74 countries globally, this diversity arguably should bring international experience from other health systems, assuming there are mechanisms in place that are amenable to knowledge sharing and skills transfer. This assertion appears even more compelling given the fact that 38% of the GPs on the register in Uganda are foreign nationals. This raises a number of important issues at policy level (Box 1) to which answers may not come easily. At the moment, the authorities seem only able to capture static data presented to them at registration. None of the Health Professional Councils have active tracking mechanisms on the activities of health workers after registration. The health professional councils have no current information as to where those foreign nationals are or what they are actually doing. Issues of inadequate capacity – human, technical and financial – have been cited as some of the causes for lack of data gathering. The health professional councils have attributed some of their limitations in data management to gaps in the laws governing the health professional councils, which are currently under review with a view to making the health professional councils function more effectively. Hopefully this will strengthen the health

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Note: Existing stock is calculated by subtracting Entry figures from Exit figures.
TABLE 3.
EXISTING STOCK OF GPs IN UGANDA BY CONTINENT OF ORIGIN NATIONALS

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL</th>
<th>AVERAGE</th>
<th>RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ugandan</td>
<td>164</td>
<td>238</td>
<td>228</td>
<td>258</td>
<td>277</td>
<td>358</td>
<td>1,523</td>
<td>254</td>
<td>57%</td>
</tr>
<tr>
<td>North American</td>
<td>60</td>
<td>113</td>
<td>94</td>
<td>69</td>
<td>113</td>
<td>63</td>
<td>512</td>
<td>85</td>
<td>19%</td>
</tr>
<tr>
<td>European</td>
<td>34</td>
<td>51</td>
<td>66</td>
<td>50</td>
<td>79</td>
<td>34</td>
<td>314</td>
<td>52</td>
<td>12%</td>
</tr>
<tr>
<td>African (Except Ugandan)</td>
<td>10</td>
<td>41</td>
<td>23</td>
<td>14</td>
<td>18</td>
<td>11</td>
<td>117</td>
<td>20</td>
<td>4%</td>
</tr>
<tr>
<td>Asian</td>
<td>15</td>
<td>30</td>
<td>21</td>
<td>18</td>
<td>16</td>
<td>9</td>
<td>109</td>
<td>18</td>
<td>4%</td>
</tr>
<tr>
<td>Others</td>
<td>24</td>
<td>15</td>
<td>15</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>75</td>
<td>13</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>488</td>
<td>447</td>
<td>415</td>
<td>511</td>
<td>482</td>
<td>2,650</td>
<td>442</td>
<td>100%</td>
</tr>
</tbody>
</table>

## BOX 1. FOREIGN GPS: POLICY ISSUES

- Does immigration of foreign GPs benefit the country? Is it sustainable?
- What exactly are the foreign GPs doing in Uganda? Is their presence positively contributing to the health sector?
- Are these GPs based in health facilities of some sort? Are they occupied with project management, or with research, and if so, how is Uganda benefiting?
- To what extent are foreign GPs accessible to ordinary Ugandans?

professional councils in their endeavours to generate, manage and disseminate data or make decisions at different levels within the health sector.

### 4.6 Existing stock: GPs in Uganda by employment sector

Figure 4 shows the employment status of GPs in Uganda registered over the period of study. The private sector was the largest employer (55%). The public sector employed 38%, while 5% and 3% were unemployed and retired respectively. This pattern was similar for foreign-trained GPs in Uganda. The majority were employed in the private sector (58%), while 38% were in the public sector and 2% were unemployed over the study period. Detailed and specific information on employment status of GPs within the private sector is not available.
5. GPs in Uganda: entry characteristics

5.1 Legality, registration and licensing

This chapter explores the entry patterns of GPs into the Ugandan labour market between the years 2010 and 2015. The “entry” category includes new workers entering the health care labour market from training. This comprises part of inflow, which can also include workers re-entering the labour market after a career break, and workers entering the labour market from international sources and as temporary or permanent migrants.

In Uganda, it is a legal requirement (but not mandatory) for professional health workers (both nationals and foreigners) to be registered with a relevant professional council created by the government for this purpose. Registration only becomes mandatory as a condition precedent to licensure for any health worker who wishes to practise or work in Uganda. Registration is a one-off procedure done upon completion of study from a university or an accredited or recognized institution in Uganda or abroad (upon entry into Uganda). As stated earlier, registration is a legal but non-binding requirement. It is, therefore, not uncommon for some health workers to ignore this requirement, especially if they intend to migrate outside Uganda or opt to work outside the health profession (for example in politics, trade or agriculture). These loopholes tend to compromise the completeness of data. For instance, there is nothing to stop a health worker from simply migrating abroad upon graduation from medical school. He or she may not see added benefit in applying to the health professional councils for registration, licensure or letter of good standing. The database therefore captures “entry” for only those who voluntarily apply, mainly because they intend to be registered to practise in Uganda or to seek work or study in other countries where a letter of good standing from a health professional council is a requirement.

5.2 Study scope

In 2015, Uganda was estimated to have 4811 medical doctors –6% of the total health workforce. GPs alone were estimated to be 3993, or 83% of available medical doctors. In this study, the entry analysis is limited to the 2915 GPs registered between 2010 and 2015 (Table 4).

5.3 Entry rate, age and sex characteristics

In the period of study, 2915 GPs entered the Ugandan labour market, giving an average entry rate of 486 new GPs to the labour market annually over the study period.

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<th>2014</th>
<th>2015</th>
<th>Total</th>
<th>Ave.</th>
<th>%</th>
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<tr>
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<td>377</td>
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<tr>
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<td>473</td>
<td>468</td>
<td>572</td>
<td>566</td>
<td>2 915</td>
<td>486</td>
<td>100%</td>
</tr>
</tbody>
</table>

8 The health professional councils include the Uganda Medical and Dental Practitioners Council, Allied Health Professionals Council, Uganda Nurses and Midwives Council, and Uganda Pharmacy Council.
Regarding gender and age patterns, the data indicate that 37% of GPs at entry were females (Figure 5), while the majority of GPs in Uganda under the study category were aged below 40 years (86%)(Figure 6).

5.4 Distribution of GPs in Uganda at entry by nationality

Figure 7 shows the origins of all GPs who entered the Ugandan labour market between 2010 and 2015. Of the 2915 GPs who entered the market, 59% were from Uganda and 41% (totaling 1207) were foreign nationals. Of the latter, 44% were from North America and 29% were from Europe, and 11% and 10% were from the rest of Africa and Asia respectively (Figure 8).

5.5 Distribution of GPs from within Africa at entry

Figure 9 shows GPs entering the Ugandan market from within Africa (excluding Uganda) in the period 2010–2015. A total of 133 GPs in this category entered Uganda over the study period, as follows: East African Community other than Uganda (Burundi, Kenya, Rwanda, United Republic of Tanzania), 29%; Greater East Africa (East African Community plus Democratic Republic of the Congo, Eritrea, Ethiopia, Somalia, South Sudan and Sudan), 32%; and Africa (excluding Greater East Africa), 39%.
5.6 Distribution of GPs in Uganda by major country or region of training at entry

5.6.1 Training at global level

The majority of GPs in Uganda received their medical training from Uganda (58%), North America (19%) and Europe (12%). Outside Uganda, North America and Europe accounted for the bulk of medical training (31%). The countries or regions of training (Figure 10) are more or less identical to the countries or regions of origin (Figure 7), implying that a GP’s country of nationality was most often where he or she trained as a doctor.

5.6.2 Ugandan nationals trained abroad

Between 2010 and 2015, out of 2915 GPs registered with the Uganda Medical and Dental Practitioners Council, a total of 72 Ugandan nationals (2.5%) returned to Uganda from training abroad, equivalent to an average of 12 annually. The vast majority (97.5%) of GPs with Ugandan nationality were home trained.

5.6.3 Foreign nationals trained in Uganda

Over the study period 38 foreign nationals (1.3%), or an average of six annually, were trained in Uganda and registered as GPs. These GPs came from 10 countries, mainly Somalia and Kenya, but also from as far afield as India, Iran, Mexico and Poland.

5.7 Distribution of GPs in Uganda by major employment sector

Table 5 shows that around half of GPs in Uganda were employed by the private sector (55%). The public sector employed about one third (38%), while 4% were retired and 3% were unemployed. It is notable that a sizable number of foreign trained GPs (39%) work in the public sector. These, however, are not in the traditional civil service; rather, they are experts working in donor projects implemented by the government of Uganda. The MOH has a number of development partners which are financing a significant portion of its budget. The data show an insignificant variation in the employment status of Ugandan-trained and foreign-trained GPs. Overall, in terms of employment, there appears to be no demonstrable preference for either home-trained or foreign-trained GPs. These patterns are also consistent with the existing stock employment characteristics. The minor deviations are consistent with changes attributed to the dynamics of the labour market.

| TABLE 5. GPs IN UGANDA, 2010–2015: EMPLOYMENT BY SECTOR AND TRAINING |
|---------------------------------|---------|---------|--------|--------|-------|
|                                  | Public  | Private | Retired | Unemployed | Total |
| Ugandan trained                  | 37%     | 54%     | 4%      | 5%      | 100%  |
| Foreign trained                  | 39%     | 57%     | 0%      | 2%      | 100%  |
| Both                             | 38%     | 55%     | 4%      | 3%      | 100%  |

9 MOH, Annual Health Survey Report 2014/15
10 The terms and conditions of work for traditional civil service employees are totally different from those of experts. The latter are determined by the respective donors and are much better by far.
5.8 Dynamics of the labour market for health workers in Uganda

In Uganda, the public sector denotes government owned and managed, while the private sector covers all other spheres owned or managed by individuals or organizations that work for profit (Private for Profit) or for charitable causes (Private not-for-profit). The common denominators that both public and private facilities are regulated by the government.

According to the Uganda Annual health survey report 2014/2015, 81,982 health workers were available in the market in 2015. Of these, 42,530 (52%) were employed in the public sector, at least 9798 (12%) in the private not-for-profit sector, and 29,654 (about one third) were private practitioners, were unemployed or had emigrated.

The 42,530 health workers were deployed across various public institutions comprising Ministry of Health headquarters, two national referral hospitals, three central specialized institutions, 14 regional referral hospitals, 47 general hospitals, 166 level IV health centres, 962 level III health centres and 1321 level II health centres.

The overall staffing level in the public sector was estimated at 70% of approved posts. Overall, central-level institutions were better staffed (77%) than the district health facilities (69%). In terms of staff cadres, the proportions of clinical officers and enrolled nurses were fairly adequate (94% and 85% respectively). However, there were severe shortages (mainly at district level) of some cadres: pharmacists and dispensers (37%), anaesthetists (23%), ophthalmic cadres (15), dental staff (13%) and cold chain technicians (5%). The staffing levels for doctors was 65% nationwide, with central-level institutions better staffed than district health systems.

As mentioned above, in Uganda, the privately owned health facilities mainly fall into two categories – Private for-Profit (PFP) and Private not-for Profit (PnP). The PnP facilities are mainly faith-based Christian or Muslim religious organizations. Altogether, there are 65 privately owned hospitals in Uganda, of which only nine are purely profit driven. Below the hospital level, there are several thousand facilities of varying capacity dotted across the country, especially in urban areas. In the rural areas, where over 70% of the population lives, nearly all the health facilities are in the public sector. The majority of private health facilities below the hospital level in Uganda are not run and operated by full-time doctors. In some cases, arrangements are made for a doctor to visit outside official working hours (after 17:00 hours), two or three times a week or at the weekend. This implies that many of the clinics are owned or managed by health workers who are public sector (government) employees and also private sector employees. Available data however is not disaggregated to reflect this dynamic. Nevertheless, there are policy implications for this state of affairs (Box 2).

**BOX 2. MOONLIGHTING: POLICY IMPLICATIONS**

- The remuneration in public facilities is so poor, doctors and other health workers have to supplement their earnings elsewhere.

- Given that government facilities are grossly understaffed and health workers have to work all day, what state of mind will they be if they have to work in private clinics after official working hours? Could this be an incentive for health workers to emigrate?

- From a moral or ethical standpoint, is it acceptable for public health workers to own a private clinic? Is there a conflict of interest?

- In Uganda, cases have been reported where public health workers have referred patients from government to private clinics in which they have a vested interest.

- Cases of pilferage of government medical supplies to private clinics are also not uncommon.

The data also show that 5% and 2% of locally trained and foreign-trained GPs (respectively) were unemployed in the study period. This is against a backdrop of severe shortages of doctors, especially in rural facilities. This situation is attributed to poor absorptive capacity and labour market imperfections generating short-run structural unemployment of qualified health workers in the economy.
In addition, the terms and conditions in the public sector are deemed unattractive, adversely affecting employment, deployment and retention, especially for rural posts. Typically, rural areas are lacking in amenities such as electricity and piped water, and often the roads are in poor condition and the facilities are in dire need of repair and equipment. It is therefore not surprising that young GPs posted to rural facilities are quick to leave their posts for more attractive employment. It is not uncommon for some districts (especially those that are hard to reach and where living conditions are unattractive) to appear to be in a perpetual recruitment drive for the same post year after year, as those recruited tend to leave their posts three to six months later.

Besides, there are structural rigidities and inherent inefficiencies in the public sector recruitment processes. Several vacancies (especially in rural facilities) have been declared or are known to exist, but it takes the authorities up to one year, sometimes more, to have them filled. It should be noted that in Uganda, recruitment into the public service is not done by the health facilities. The facility has absolutely no say in the recruitment process. At the health facility, where the need for doctors is real, urgent and desperate, recruitment remains a remote function of either the local or central government, which is wrought with bureaucratic inefficiencies and delays. On their part, the authorities blame inadequate funding. However, there are several cases where funding is available in the budget but the recruitment process still takes as long.

In addition to the policy considerations raised above, including in Boxes 1 and 2, other relevant bureaucratic and political issues in the Ugandan public health system are as follows:

- While the staffing levels appear relatively reasonable (70% overall and 65% for medical doctors), they are not based on actual or felt needs that reflect the realities on the ground. The structures and number of posts are determined and tightly controlled by the government (Ministry of Health, Ministry of Public Service, and Ministry of Finance, Planning and Economic Development). While the Ministry of Health is the technical department responsible for determining the health needs and subsequent structures and posts, approval lies with Ministry of Public Service. Even Ministry of Public Service approvals are not guaranteed, as they are subject to Cabinet approval. Above all, the final position will be dictated by the Ministry of Finance, Planning and Economic Development, which tightly controls budget allocations.

- According to the Ministry of Health, the current structures of health facilities and the posts established have been determined on the basis of being able to deliver the National Minimum Health Care Package for Ugandans. This again demonstrates that the structures and posts established do not necessarily reflect the actual or felt needs on the ground.

6. GPs in Uganda: exit characteristics

Exit (or outflow) comprises health professionals exiting employment due to retirement or departure to other sectors or other countries (emigration); exit may also be due to death, or being deregistered from the nominal roll or official gazette.

6.1 Study scope and limitations

The "exit" statistics (Table 6) availed to this study by the Uganda Medical and Dental Practitioners Council are based only on letters of good standing solicited by GPs intent on travelling abroad for study or employment or

### Table 6.
OUTMIGRATION BY GPs FROM UGANDA BY FIRST YEAR OF REGISTRATION

<table>
<thead>
<tr>
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<td>61</td>
<td>84</td>
<td>265</td>
<td>44</td>
<td>100%</td>
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</tbody>
</table>
both. The analysis, therefore, excludes other exit aspects, including retirement,\textsuperscript{11} death, changing trades and deregistration.

Letters of good standing serve only as proxy indicators, given that there are currently no mechanisms either at the health professional councils or Ministry of Health for actual tracking of the movements of applicant GPs within the country and abroad. It is not even possible at the moment to tell if the applicant actually left the country based on the letter of good standing issued. Moreover, letters of good standing are not mandatory for all countries or institutions. GPs intent on outmigration are free to do so at will and without recourse to the Uganda Medical and Dental Practitioners Council.

6.2 Overall pattern

The data (Table 6) indicate that 265 GPs out of a total 2915 (Table 4) migrated from Uganda between 2010 and 2015. This gives an attrition rate of 9% per annum. However, this figure could be higher, given that migration is entirely possible without recourse to the registration and licensure body. For example, it is known that a number of Ugandan medical doctors are currently working in South Sudan, yet there are no records to that effect at the Uganda Medical and Dental Practitioners Council or Ministry of Health.

6.3 Exit by sex and age

Table 6 shows a female exit rate of 33%, compared to 37% each for entry and existing stock. Gender, therefore, does not have a significant impact on the rate of migration.

6.4 Exit trends

The cumulative total number of GPs who migrated abroad from Uganda over the period of study was 265 (an average of 44 per annum), compared to the cumulative total of 2915 who entered the job market in the same period, giving a retention rate of 90% (Table 7). As depicted in Figure 12, there was a sustained upward increase in the proportion of the workforce migrating, increasing from 6% in 2011 to 32% in 2015.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline
\hline
Entry & 331 & 505 & 473 & 468 & 572 & 566 & 2 915 & 486 100 \% \\
Exit & 24 & 17 & 26 & 53 & 61 & 84 & 265 & 44 9 \% \\
Existing stock & 307 & 488 & 447 & 415 & 511 & 482 & 2 650 & 442 91 \% \\
\hline
\end{tabular}
\end{table}

\footnote{11 Retirement has been analyzed under "entry" and "existing stock" where data were available.}
6.5 Exit: comparison of Ugandan and foreign GPs

Figure 13 shows the exit trends for Ugandan and foreign GPs. Of the 265 GPs who migrated from Uganda between 2010 and 2015, 192 were Ugandans (73%) and 73 were foreigners (27%). Of foreigners exiting, 11% were Europeans and 6% were Americans. The reasons attributed to Ugandan emigrants have been alluded to. However, for the foreign nationals, it is not clear whether they leave Uganda upon completion of a specific assignment or as a deliberate move in search of better opportunities elsewhere. Nor is it clear from available data whether the emigrating GPs return to their countries of origin or go further afield.

6.6 Exit destinations

Figure 14 depicts the main destinations for migrating GPs. Africa was the most popular destination of choice, with over half of the migrant GPs (52%) from Uganda staying within Africa. Around one third of the migrants (30%) were destined for Europe, while North America and Oceania absorbed 8% and 7% respectively.

Considering the main destinations by region, the data (Table 8) indicate that Namibia accounted for 25% of all emigrations within Africa, followed by Kenya at 23%. For Europe, the United Kingdom was the leading destination, accounting for 62% of all migrants, followed by Germany with 12%. In the case of North America, Canada alone
absorbed 63% while the United States received 31% of migrants. Migrants to Oceania went to Australia (80%) and New Zealand (20%). Migration to Asia was largely to India (82%), and in the case of the Middle East, just one country – the United Arab Emirates – received migrants (100%).

By Africa region (Figure 15), southern Africa (60%) was the main destination for migrant GPs from Uganda, followed by Greater Eastern Africa (37%). Only 3% of the GPs migrated to West Africa. No migrations to North Africa were recorded in the period 2010–2015.

Curiously, there are no figures for emigration to South Sudan and Somalia, though in Uganda it is generally known that the two countries have several dozen Ugandan health workers, including doctors. This may be because these countries do not ask for letters of good standing from foreign workers, perhaps to facilitate immigration of foreign workers to assist in these disadvantaged locations, or because registration systems are not functioning properly due to the conflict situation.

6.7 Emigration destinations globally

The top 10 countries for migrant GPs from Uganda between 2010 and 2015 in order of importance were:

1. United Kingdom (37)
2. Namibia (25)
3. Kenya (23)
4. Botswana (18)
5. South Africa (18)
6. Australia (12)
7. United Republic of Tanzania (12)
8. Canada (10)
9. Germany (7)
10. United States (5)

A list of all destination countries for emigrant GPs from Uganda for the period 2010–2015 is contained in Annex 3.
6.8 Exit by GPs of Ugandan nationality only

Over the study period, 192 GPs of Ugandan nationality emigrated compared to 71 Ugandan nationals registered as having returned to Uganda from study or work abroad. This approximates to a 3:1 ratio of exit to entry. Figure 16 depicts the widening inflow/outflow gap, with an increasing rate of outward migration compared to inward migration.

Additional observations on exit and migratory patterns of GPs in Uganda are presented graphically and in tabular format in Annexes 1–6.

7. Conclusions

Uganda’s health workforce

The annual health sector performance report for financial year 2014/2015 shows that there are 42,530 health workers employed in the public sector. The staffing is shared between:

- Ministry of Health headquarters
- two national referral hospitals
- Three central specialized health institutions
- 14 regional referral hospitals
- 47 district or general hospitals
- 182 level IV health centres
- 962 level III health centres
- 1,321 level II health centres.

The report notes that the overall staffing level for central government institutions (regional referral hospital and above) stood at 77%, and for local government institutions at 70%. The report, however, does not disaggregate data on employment and deployment of health workers in the private sector. Nevertheless, the report provided useful information on the dynamics of the health workforce in Uganda (including GPs) and an initial understanding of employment and emigration issues in Uganda.

Case study 2: reliability and validity of data

Case study 1, which was carried out in Year 1 (2015) of the European Union-funded Brain Drain to Brain Gain project, provided useful information on the entry, exit and existing dynamics of the health workforce in Uganda. The data source (Uganda Medical and Dental Practitioners Council) provided information that met the minimum requirements stipulated in the WHO research protocol, except for a few gaps related to migrations, deaths and retirements, which should be filled. There is also a need for substantive improvements in the quality and quantity of the data collected, and analysis and dissemination of the data. “Smart and intelligent” data linkages should be made across the spectrum – registration, licensing, employment, migration and training.

Case study 2 has employed the same data sources already established to have met the necessary minimum requirements. As with case study 1, case study 2 used letters of good standing, usually required by those seeking to leave Uganda in search of employment or for study, as a proxy for emigration. However, letters of good standing are merely intentions that may or may not be carried to fruition. This is the inherent weakness in the data, which nevertheless does
not significantly affect the analysis, interpretation and conclusions of case study 2.

**Employment dynamics in Uganda**

It has often been argued that poor remuneration is the major factor affecting performance of public health workers. On occasion, governments have responded by increasing salaries of health workers with the hope of attracting and retaining workers and ultimately improving health outcomes. However, improvements in health outcomes have generally been marginal, indicating that several other factors are at play besides health worker remuneration. The model below presents a number of variables that, when properly integrated and aligned, may facilitate attracting and retaining qualified health workers and motivating them to deliver desired health outcomes:

It is thus the submission of this case study that employment conditions determine labour outcomes. In most cases, workers seek environments with good infrastructure (roads, electricity, piped water, access to goods and services, and other amenities of life) and opportunities for capacity-building and career progression. That is why in Uganda health workers, especially doctors, tend to shun rural areas, especially those that are hard to reach and where living conditions are unattractive. Health workers, especially doctors, quickly become frustrated working in facilities that are dilapidated and ill equipped and that routinely experience stock-outs of drugs and supplies. Coupled with a lack of visionary leadership and unsupportive management, it is often only a matter of time before health workers choose other employment options, including emigration.
Recommendations

Based on the evidence generated from this study the following recommendations are made to enhance staff retention and stem attrition:

1. **Health Workforce Management and Development**: Government to take bold measures to improve the professional governance and management of health workers in Uganda by appointing personnel with specialist training in health worker development and management. At the present time the Human Resources Department is populated and led by staffs who are general Human Resources Managers with no experience or background in health workforce development and management.

2. **Health Workforce Information Systems**: A Health Workforce Observatory should be established as an important component of the Health Management Information System in Uganda to closely monitor health worker flows.

3. **Conditions of Service**: Measures for the improvement of working conditions of health workers are critical to any efforts to improve on retention. Such measures should include increased remuneration which must be regularly reviewed for inflation, adequate staff housing, top-up allowances for staff in hard to reach areas, insurance and other non cash incentives. Further to this the establishment of clear channels for career development through in-service and formal training, recognition of and reward for additional qualification through promotion in the civil service. The regular review of the civil service structure to accommodate emerging specialties in medical practice will further serve as an incentive for Doctors to undertake training in those areas.

4. **Equipment, Medicines and Supplies**: The Ministry of Public Service has promulgated a Code of Conduct for Public Servants which includes responsibility of government to provide conditions that facilitate public servants to perform their roles. Government should therefore fulfill this obligation and ensure that health facilities are adequately equipped with essential medicines, medical supplies and equipment to facilitate the provision of quality health care services.

5. **Bilateral Agreements**: Negotiation of bilateral agreements with destination countries to manage the inevitable cases of migration so that the destination countries can provide appropriate support to training institutions in Uganda but also agree favorable terms of service for migrating health workers - Government of Uganda should consider agreements with Namibia, Botswana, South Africa, Kenya, United Kingdom, Australia and Canada with most documented cases of migration.
BOX 3. ADDITIONAL RECOMMENDATIONS ARISING FROM THE CASE STUDY

- It is important to have the right numbers of health workers in the right places in order to make a difference to the quality of health care delivery.

- Data on the private sector health workforce should be collected and included in national health workforce statistics.

- The mal-distribution challenges that hinder attraction and retention of the health workforce in some locations need to be addressed through more attractive working conditions and remuneration packages, in order to reduce the high turnover of staff.

- Efforts should be made to ensure that project activities act as a catalyst for the reinforcement of the capacities of councils to incorporate in their routine data management systems additional information that can track, on a regular basis, exit from the workforce.

- The existing national policies on human resources for health should be applied more effectively to human resource management, for example to address shortages by developing human resources for health staffing projections in keeping with health system priorities.

- Surveys should be conducted on the cohorts of health workers that requested letters of good standing to determine what proportion of them actually did migrate.
Bibliography


Global Health Workforce Alliance. EU Brain Drain to Brain Gain project: WHO Code of Practice on International Recruitment of Health Workers.


Ministry of Health, Uganda. 2015. Improving HRH evidence for decision making. Human resources for health bi-annual report.


ANNEX 1.
ANNUAL DISTRIBUTION OF EMIGRANT GPs FROM UGANDA, 2010–2015

ANNEX 2.
DISTRIBUTION OF EMIGRANT GPs FROM UGANDA BY REGION OF DESTINATION, 2010–2015
## ANNEX 3.
### DESTINATION COUNTRIES FOR EMIGRANT GPs FROM UGANDA, 2010–2015

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ANNEX 4.
DISTRIBUTION OF ENTRY, EXIT, STOCK, ORIGIN AND TRAINING OF GPs IN UGANDA, 2010–2015 (1)

ANNEX 5.
DISTRIBUTION OF ENTRY, EXIT, STOCK, ORIGIN AND TRAINING OF GPs IN UGANDA, 2010–2015 (2)

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** Note some totals may not be exact due to rounding off
ANNEX 6.
DISTRIBUTION OF UGANDAN EMIGRANT GPs BY AFRICAN REGION, 2010–2015

The diagram shows the distribution of Ugandan emigrant GPs by African region from 2010 to 2015. The regions are South Africa, Greater Eastern Africa, West Africa, and North Africa. The percentage of GPs is indicated for each region and year, with South Africa showing the highest percentage in 2014 and 2015.
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